<Poster Session>Movement patterns of juvenile Pacific bluefin tuna arriving in the south coastal areas of Japan

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Abstract

*Juvenile Pacific bluefin tuna (*Thunnus orientalis, *PBF) are still small (about 20cm in fork length, FL) and so weak that even direct touch to the fish can cause fatal damage. Their vulnerability makes it difficult to collect vital data in the natural environment over the past years. We developed an operational instrument for smooth and quick attachment of tags. Fish was kept in the water even during the operation and we shorten the operation time to be 30-60 seconds. Also, the mechanical progress (archival tags downsized dramatically) contributed to the survival rate. The movement patterns of the juvenile PBF was investigated using the archival tags implanted in a fish during August in 2012, 2013 for 75, 62 individuals (18-33cm FL). Twenty one tagged fish were recaptured in total (recovery rate 15.3%), and we downloaded data successfully from eight of thirteen tags recovery. One tagged juvenile, which recorded for 79 days from August to October off Kochi (grew up from 24.5 to 50.0cm in FL). Our data showed that the tagged juvenile moved between coastal areas and offshore into the Kuroshio Current, thus the offshore coverage of their habitat could be restricted to the Kuroshio Current in their nursery areas.*

***Keywords**: Archival tag, Habitat utilization, Kuroshio Current, Thermocline, 0-year-old fish*